

### **REMARKS/ARGUMENTS**

Applicant thanks Examiner Bogart for the courtesy of a telephonic interview with the undersigned Applicant's representative on September 13, 2007. Copending application No. 10/756,849 was also discussed. The copending application has similar claims and a terminal disclaimer has been submitted. It was agreed in the interview that the claims are in condition for allowance.

#### **Rejection Under 35 USC 103(a)**

The Office rejected claims 1-8 as allegedly obvious in view of the combination Weinberg (5,856,248), Fechner, and Gabbay (US 6,124,221). This rejection was discussed and, to the extent relevant, Applicant reiterates the comments made in the response filed March 5, 2007.

#### **Rejections made in copending application No. 10/756,849**

In the copending application new rejections were made of claims similar to those pending in the instant application. To expedite prosecution Applicant addresses those issues below.

#### **Rejection under 35 USC 112, first paragraph (enablement)**

In the copending application the Office believed that the specification was not enabling for making a dark brown form of copper (i.e., a mixture of cupric oxide and cuprous oxide). Applicants noted that this is clearly enabled and described in Example 1, describing a process in which "Fibers were allowed to dwell for no less than 2 minutes or until all fibers were plated by a dark brown form of copper." Moreover, the copper plating process is known (although not for use in making paper-based products); see specification at, e.g., the top of page 5.

#### **Rejection Under 35 USC 103(a)**

In the copending application the Office rejected the claims as allegedly obvious in view of the combination Weinberg (5,856,248) and Gabbay (CA 2 404 972 A1). Weinberg was

described in Applicant's previous response. Gabbay was newly cited. During the interview Examiner Bogart expressed the belief that the copper oxide of Gabbay could be used in the cellulose fibers of Weinberg because Gabbay teaches that copper oxide particles have antibacterial effects and Weinberg describes a product that contains copper hydroxide.

*Gabbay*

Gabbay described polymers (e.g., polypropylene fibers) containing copper particles (e.g., 1-10 microns in size) of cupric oxide and cuprous oxide. Gabbay teaches that the product is made by (for example) adding copper powder to a slurry of liquid polymer and forcing the liquid suspension through a spinneret (see entire specification, e.g., Example 1 on page 7). Gabby further teaches that the product is a fiber that contains particles of copper oxide partly protruding from the surface of the fiber (see Figure 1).

*Weinberg*

Weinberg described chemically modifying cellulose fibers by a first stage treatment with a water soluble salt of a transition metal (e.g., copper sulfate) and an alkali (e.g., sodium hydroxide), resulting in a fiber having copper cations associated with cellulose by ionic bonds (col. 3, lines 18-19). Weinberg reports that the color of the copper treated cellulose is light blue (see column 3, line 22). Light blue color is a characteristic of copper hydroxide. In the second stage the fiber is treated with a solution of a bisbiguanide compound (e.g., chlorhexidine). The chlorhexidine is bound to copper by coordinative bonds thereby forming a bond between the fibers, the transition metal and bisbiguanide. The process results in a cellulose-copper-bisbiguanide compound complex attached to cellulose (column 3, lines 45-54).

The Office suggested that the copper oxide particles of Gabbay could be used in Weinberg process in place of copper sulfate. Initially Applicants believe that there would have been no motivation to combine these references: one related to modifying cellulose fibers while the second related to polymer fibers that contain copper oxide particles. Moreover, Weinberg specifically call for a "water soluble salt" of a transition metal. The copper oxide particles in

Gabbay are oxides and are water insoluble. For example, see JT Baker (reference V in the *Notice of References Cited* from the Office in the copending application) describing cuprous oxide as "practically insoluble in water"; also see the materials accompanying Applicant's declaration submitted March 5, 2007 at the request of the Office. Substitution of copper oxide for copper sulfate in Weinberg, even if, *arguendo*, there was any motivation for one of skill to do so, would not result in the claimed invention because, *inter alia*, water insoluble copper oxide would not react with alkali, cellulose, bisguanide, etc. in the manner in which the water soluble salt copper sulfate reacts in Weinberg. The substitution proposed by the Office would not be made by one of skill in the art.

For the reasons discussed above, the rejections should be withdrawn.

#### Related applications

During the interview it was again noted that copending application No. 10/756,849 (also examined by Examiner Bogart) and application No. 10/405,408 (examined by Examiner Mercier) have claims similar to that of the instant invention, and the status of the applications was noted.

**CONCLUSION**

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested, if appropriate.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-326-2400.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Randolph Ted Apple', with a stylized, sweeping flourish extending to the right.

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